

Hypothesis Testing Contingency Tables for Independence/an Association

Let us look back on the example of the biology students' observations of caterpillars on both a flower garden within the college grounds and at the local nature reserve. The size of each caterpillar was estimated into one of three categories; small, medium or large based on its length and weight.

	Small	Medium	Large
College Grounds	21	12	5
Nature Reserve	43	31	26

The student believes that the size of the caterpillar is associated with the area in which it was found. Test the student's belief using a χ^2 test at the 5% significance level.